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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,088	09/22/2003	Takanori Kamoto	BJS-1114-189	6085
23117 7590 04/28/2009 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
FAISON GEE, VERONICA FAYE				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
04/28/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/665,088

Applicant(s)

KAMOTO ET AL.

Examiner

VERONICA FAISON GEE

Art Unit

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2-26-09.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 54, 56-58, 60-76, 78-80 and 82-96 is/are pending in the application.
- 4a) Of the above claim(s) 64-69, 73, 74, 86-91, 95 and 96 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 54, 56-58, 60-63, 70-72, 75, 76, 78-80, 82-85 and 92-94 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment/Arguments

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Applicant's amendment/arguments are persuasive to the extent that the rejections over Fague and Santilli have been withdrawn. However, a new grounds of rejections is below.

Claims 54, 56-58 60-76, 78-80 and 82-96 are pending in the application, however claims 64-69, 73, 74, 86-91, 95 and 96 are withdrawn due a restriction requirement and the election of Group I which was elected in response filed 4-7-05.

Terminal Disclaimer

The terminal disclaimer filed on 9-1-08 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 7,264,664 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 102

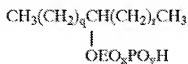
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 54, 56-58, 60-62, 71, 75, 76, 78-80, 82-84, and 93 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakatsu et al (US Patent 6,790,269).

Nakatsu et al teach an ink composition comprising a dye and/or pigment and water. The ink composition further comprises a nonionic surfactant having polyethylene oxide groups and polypropylene oxide groups of the following structure:



wherein q and r are respectively the numbers of methylene groups and satisfy the relation that $9 \leq q+r \leq 11$. (which appears to encompass structures IV and XII) (abstract, col. 2 lines 14-38, col. 3 lines 23-54). The reference further teaches that the nonionic surfactant is present in the amount of 0.001 to 2 percent by weight, that the pigment is a self-dispersing pigment and that a water-soluble organic solvent may be present in the amount of 30 percent by weight or more (col. 2 lines 41-55). The organic solvent comprising an ethylene glycol based ether including triethylene glycol based ether (col. 4 lines 23-28). The reference further teaches that the static surface tension is in the range of 25 dyne/cm to 50 dyne/cm (25 mN/m to 50 mN/m) (col. 5 lines 31-33). The reference discloses that the ink composition is subject to a printing experiment in a piezoelectric ink jet printer. The reference remains silent the all the components of the ink jet printing apparatus. However, piezoelectric printer inherently has the components as claimed by Applicant. The reference does not disclose the dynamic surface tension and the difference between dynamic and static surface tension. However, the

composition of the reference is identical to the claimed composition and identical composition must have the same properties. See MPEP 2112.01 I. For these reasons, the composition of the reference is presumed to inherently possess the claimed properties. The composition as taught by Nakatsu et al appears to anticipate applicant's claimed invention.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

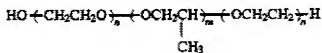
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 63, 70, 72, 75, 85, 92-94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsu et al (US Patent 6,790,269) in view of Santilli et al (US Patent 5,738,716).

Nakatsu et al fails to teach an ink set with specific pigment.

Santilli et al teach a color ink set comprising a first ink comprising a carrier and a bridged aluminum phthalocyanine as a cyan colorant, a second ink comprising a quinacridone pigment as a magenta colorant and a third ink comprising a carrier and a non-benzidine yellow pigment. A fourth ink comprising pigment black 7 may also be included in the ink set (abstract, col. 1 lines 38-48). The ink set is intended to be used

in three- or four color ink jet printers (col. 1 lines 57-60). The reference further teaches that the pigments that may be used in the set include Pigment Red 122 and Pigment Yellow 74 (col. 2 lines 39-44). The carrier is water or a mixture of water and a polyhydric alcohol present in the amount of 70 to 98 weight % and the pigment is present in the amount of 0.1 to 10% by weight (col. 5 lines 1-14). The reference further teaches that block copolymers are added in the amount of 0.2 to 5% by weight and includes the following structure:



(col. 5 lines 22-31). The reference discloses that the pigmented ink jet inks suitable for use with ink jet printing systems should have a surface tension in the range of 20 dynes/cm to about 60 dynes/cm (20 mN/m to 60mN/m). Control of surface tension in aqueous inks is accomplished by additions of small amounts of surfactants (col. 6 lines 60-66). The inks are ink jet printed wherein liquid ink drops are applied in a controlled to an ink receptive layer substrate, by ejecting ink droplets from the plurality of nozzles or orifices in a print head of ink jet printers. The reference further discloses that piezoelectric and thermal are systems that may be used with the ink compositions and that ink jet printing methods, and related printers are commercially available and need not be described in detail (col. 7 lines 28-45). The reference remains silent to the difference of surface tensions.

Therefore it would have been obvious to one of ordinary skill in the art the ink composition of Nakatsu et al in the ink set of Santilli et al, Santilli et al are similar ink composition trying to control the surface tension within inkjet printing processes.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VERONICA FAISON GEE whose telephone number is (571)272-1366. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/V. F. G./
Examiner, Art Unit 1793

/J.A. LORENZO/
Supervisory Patent Examiner, Art Unit 1793